

CLAIMS:

1. A thermal spray powder comprising:
particles composed of molybdenum disulfide; and
5 a coating layer provided on a surface of each of the particles, wherein the coating layer is composed of a metal that is softened or melted at a temperature lower than the heat decomposition temperature of the molybdenum disulfide.
- 10 2. The thermal spray powder according to claim 1, wherein the coating layer is provided on the entire surface of the each particle.
3. The thermal spray powder according to claim 1, wherein
15 the content of the molybdenum disulfide in the thermal spray powder is 30% to 90% by weight, and the content of the metal in the thermal spray powder is 10% to 70% by weight.
4. The thermal spray powder according to claim 3, wherein
20 the content of the molybdenum disulfide is 40% to 80% by weight, and the content of the metal is 20% to 60% by weight.
5. The thermal spray powder according to claim 1, wherein the metal is copper.
- 25 6. The thermal spray powder according to claim 5, wherein the content of the molybdenum disulfide in the thermal spray powder is 30% to 90% by weight, and the content of the copper in the thermal spray powder is 10% to 70% by weight.
- 30 7. The thermal spray powder according to claim 6, wherein the content of the molybdenum disulfide is 40% to 80% by weight, and the content of the copper is 20% to 60% by weight.
- 35 8. A process for producing a thermal spray powder, the

process comprising:

preparing particles composed of molybdenum disulfide; and
providing a coating layer on a surface of each of the
particles by an electroless plating method, wherein the
5 coating layer is composed of a metal that is softened or
melted at a temperature lower than the heat decomposition
temperature of the molybdenum disulfide.

9. A process for producing a thermal spray powder, the
10 process comprising:

preparing particles composed of molybdenum disulfide; and
providing a coating layer composed of copper on a surface
of each of the particles by an electroless plating method.

15 10. A method for thermal spraying a thermal spray powder, the
method comprising:

preparing the thermal spray powder, wherein the thermal
spray powder includes:

20 particles composed of molybdenum disulfide; and
a coating layer provided on a surface of each of the
particles, wherein the coating layer is composed of a
metal that is softened or melted at a temperature lower
than the heat decomposition temperature of the molybdenum
disulfide; and

25 feeding the thermal spray powder to a flame in order to
soften or melt the thermal spray powder, wherein a cylindrical
air stream passes around the flame, and wherein the thermal
spray powder fed to the flame passes through the inside of the
air stream to be softened or melted in the inside of the air
30 stream, and the powder is subsequently sprayed onto a
substrate.